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EIGHTH REPORT ON INTERNATIONAL LIABILITY FOR INJURIOUS CONSEQUENCES ARISING OUT OF ACTS NOT PROHIBITED BY INTERNATIONAL LAW

by

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INTRODUCTION

A. The articles proposed thus far

1. This being the first year of this Commission's five-year term, and there being many new members, it is appropriate to review the status of the topic. Here, a reading of the seventh report of the Special Rapporteur is very useful: in it he attempted to give an overview of the draft articles and of the reaction to them both in the Commission and in the Sixth Committee. The reader will also find there some suggested guidelines for the future development of the most important aspects of the draft articles.

2. This said, the Special Rapporteur notes that the general-debate phase is over, and he therefore proposes limiting the discussion as far as possible to the content of the present report.

B. The first 10 articles

1. General comments

3. The Commission considered two sets of texts, which are to be found in the general list of articles distributed to members. One set is composed of the first 10 articles included in the fourth report of the Special Rapporteur (A/CN.4/413), which were transmitted to the Drafting Committee for review. During the debate preceding their transmission, important suggestions were made for possible modification of the articles, including proposed reformulations that improved them. In considering the report, the Sixth Committee put forward other considerations that, in the Special Rapporteur's view, also deserved to be taken into account. In his fifth report, 1/ those comments were incorporated into nine articles, which were discussed in the Commission and added as material for consideration by the Drafting Committee. There were nine articles and not 10 because the Special Rapporteur saw that there was a consensus - never contradicted - to delete article 8 in the fourth report, which had expressed the principle known as "participation". 2/ Also as a result of the debate, notes were added in the sixth report (A/CN.4/428 and Add.1) to some of the articles, presenting other, somewhat different

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1/ A/CN.4/423 and Corr.1 and 2.

2/ The proposed text read as follows:

"By virtue of this duty to co-operate, source States shall permit participation under the present articles by States likely to be affected, so that they might jointly consider the nature of the activity and its potential risks, and determine whether a regime needs to be jointly developed in this area."

drafting proposals for consideration of the Drafting Committee and, naturally, for the attention of the Commission at the appropriate time.

4. The Drafting Committee will thus have the version originally referred to it of the first 10 articles, plus the material for consideration consisting of the nine articles from the fifth report and the proposals contained in the notes to some of these articles from the sixth report. The Drafting Committee is aware that there was a consensus to delete article 8 of the original first 10 articles, concerning the principle of participation.

2. Article 2

5. Starting with the sixth report, given the very special nature of the topic and the absence of precedents for a general instrument such as the one the Commission might be putting forward, most of the articles are completely experimental, since they were intended simply to elicit the reaction of colleagues and of the Sixth Committee, and to give a full picture of the possible range of the draft articles. On such a trial basis, in an attempt to satisfy a small but insistent line of thinking that favoured establishing a list of dangerous activities in order to define the scope of the topic more precisely, the concept of "dangerous substances" and other similar substances was included, as in the Council of Europe's important draft convention on civil liability for damage resulting from environmentally dangerous activities. 3/ As a result, the original text of article 2 (Use of terms) and of other articles had to be amended to correspond to the new idea of dangerous substances. The Commission and the Sixth Committee did not prove receptive to the inclusion of such a concept or, consequently, to the resulting amendments. The Drafting Committee knows, therefore, that subparagraphs (a), (b), (c) and (d) proposed in the sixth report are not acceptable, and that it should in principle go back to using as a basis for consideration the wording proposed in the fifth report, amended as indicated below.

6. Article 2 is of a very special nature. It was noted at one point 4/ that the article was open to the introduction of new terms and the adaptation of existing ones to subsequent developments. It is thus a flexible article. The sixth report discussed "other amendments to article 2 and other general provisions" 5/ that the Drafting Committee should take into account, which were related not to the concept of "dangerous substances" but to other concepts that had required definition after article 2 had been referred (as part of the first 10) to the Drafting Committee.

3/ See the sixth report (A/CN.4/428), paras. 15-17.

4/ Idem, para. 19.

5/ Idem, chap. I.C.

C. The second set of articles

1. The principle of non-discrimination (article 10)

7. The fifth report contained a new draft article 10 on the principle of non-discrimination, 6/ and it met with general support. It should thus be referred at this session to the Drafting Committee, so that it can conclude its review of the governing principles thus far proposed.

2. The remaining articles

8. Next come a set of articles numbered 11 to 33, grouped into various chapters: chapter III develops the principle of prevention; chapter IV that of State liability; and chapter V that of civil liability. All these chapters are, as stated earlier, merely exploratory, and the new Commission should forget them for the moment. As it proceeds with the topic, these or other more definitive texts will be proposed in the light of the debates that will have been held in the Commission and in the General Assembly. In this report, for instance, we are submitting articles on the development of the principle of prevention that are already more concrete, having waited to draw on the conclusions of the latest debate, which was, as we see it, decisive. In addition, some definitions in article 2 are reconsidered in an appendix to the report. These definitions have been put in an appendix in order to underscore the fact that article 2 has already been referred to the Drafting Committee, and that the debate is simply a continuation of the one that has already taken place.

6/ The text reads as follows:

"States parties shall treat the effects of an activity that arise in the territory or under the jurisdiction or control of another State in the same way as effects arising in their own territory. In particular, they shall apply the provisions of these articles and of their national laws without discrimination on grounds of the nationality, domicile or residence of persons injured by the activities referred to in article 1."

(See also A/CN.4/428, para. 29.)

I. DEVELOPMENT OF THE PRINCIPLE OF PREVENTION

A. Obligations of prevention

9. In the discussions on obligations of prevention, the Commission asked two basic questions: (a) should there be, in connection with the activities covered by article 1, obligations of prevention in addition to obligations of reparation? (b) if the answer is in the affirmative, should activities involving risk and activities with harmful effects be addressed in this area jointly or separately? On the first question, a substantial body of opinion favoured a separate, recommendatory instrument on obligations of prevention that were simply procedural, such as those set forth in draft articles 11 to 15 in the version contained in the sixth report. Also to be taken into account are the opinions of those who wanted procedural obligations eliminated, purely and simply. The conclusion, then, is that a decisive majority was against the retention of procedural obligations. For those reasons, it is now proposed that an annex containing no more than recommendations should be included.

10. There were, on the other hand, some who argued that unilateral preventive measures, such as those envisaged in article 16 of the text contained in the sixth report, 7/ should be obligations binding on the State. 8/ A

7/ They would be obligations, along the lines of obligations of due diligence, resting with the State of origin. This would mean that legislative, administrative and enforcement action would be needed, so as to ensure that the individuals conducting the activity took substantive measures. The proposed text of article 16 reads as follows:

> "If the activity in question proves to be an activity referred to in article 1, and until such time as agreement is reached on a legal regime for that activity among the States concerned, the State of origin shall take appropriate preventive measures as indicated in article 8 [which establishes in general the principle of prevention], in particular, appropriate legislative and administrative measures including: requiring prior authorization for the conduct of the activity and encouraging the adoption of compulsory insurance or other financial safeguards to cover transboundary harm, as well as the application of the best available technology to ensure that the activity is conducted safely. If necessary, it shall take government action to counteract the effects of an incident that has already occurred and that presents an imminent and grave risk of causing transboundary harm."

Suggestions for improving the language of the text were made: for example, it was said that the reference to insurance belonged in the domain of liability, rather than prevention; the final sentence, it was felt, might be better placed in articles regarding an emergency procedure.

8/ In earlier reports, the adjective "hard" was used to describe this type of obligation. We prefer simply to say "obligations" in future, on the understanding that there are really no "soft obligations". Rather than "soft obligations", we shall just say "recommendations".

clarification is called for in this connection: time and again, the International Law Commission and the Sixth Committee have heard comments associating risk with prevention, and harm with reparation. Thus prevention would be related solely to what are termed "activities involving risk", i.e., activities likely to be a source of significant transboundary harm. There is, however, one fact that speaks volumes and should make us reflect on that first impulse which leads us to admit that "prevention is better than cure"; it led us to one of the thorniest problems facing this draft. The fact is that international instruments governing specific activities "involving risk" include no provisions on prevention, if by "prevention" we mean avoiding the occurrence of accidents. They are instruments that establish the civil liability of certain private individuals for harm caused by activities considered dangerous, as with nuclear energy, transport of petroleum by sea, aviation and the like. 9/ In those conventions which do not establish State responsibility, or in which it is subsidiary to civil liability, such as the Paris and Vienna Conventions regarding liability for nuclear damage, it is impossible to attach to the same subject (the operator responsible) and for the same event both the responsibility for the breach of obligations of prevention - for a wrongful act - and strict liability (sine delicto), because, in regard to responsibility, wrongfulness is precluded if the subject of the obligation exercised due diligence, and, in regard to strict liability, the subject must provide compensation, irrespective of any measures taken in the attempt to prevent the event. (See articles 21 and 23 of part one of the draft articles on State responsibility.) 10/ Moreover, strict liability is usually a sufficient incentive for those in authority to take adequate preventive measures, inasmuch as compensation would have to be provided after any accident. The only way to include both forms of responsibility in the same legal instrument is to attach responsibility to different acts or to different subjects (e.g. responsibility of the State for prevention, and civil liability for reparation).

11. Such being the case, it might be more practical to consign all the obligations of prevention (both the procedural obligations and those that we have described as "unilateral" or as obligations of due diligence) to an

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9/ The only convention to establish State responsibility/liability is the one concerning the launching of objects into space, but it does not contain obligations of prevention. To some extent, the Convention on the Regulation of Antarctic Mineral Resources Activities (Antarctic Convention) establishes State responsibility/liability, but for wrongful acts.

10/ For this very reason, the Convention on International Liability for Damage Caused by Space Objects contains no provisions on prevention: all the obligations rest with the State, and as the responsibility/liability of the State is absolute, there is no point in requesting it to take certain preventive action. It would be almost like wanting to punish attempted suicide with the death penalty.

annex consisting of purely recommendatory provisions to guide States in better complying with the articles in the main text. The reasons are as follows: (a) as already stated, the tendency in the existing conventions on responsibility and liability is not to address prevention 11/ as defined earlier; (b) these would be obligations resting with the State, 12/ and any breach would entail State responsibility. While it is true that there are two different subjects here (the State and private officials), we might have, in connection with the same incident (i.e. the same episode of transboundary harm), responsibility on the part of the State for a wrongful act, as well as strict liability or liability for risk, on the part of private officials. Although it may be argued that the Conventions on nuclear damage establish some responsibility on the part of the State, such responsibility is not for wrongful acts, but is merely subsidiary to the strict liability of private individuals and is intended to cover damage for which they do not provide compensation. There is no need to choose between two options - one leading to State responsibility, the other leading to civil liability - which would not be very easy to reconcile, 13/ not to mention the fact that States have been extremely reluctant to assume responsibility/liability in existing conventions, or draft conventions, regulating certain activities involving risk. Likewise, in the only draft dealing in general with activities that are dangerous to the environment, the Council of Europe draft, there are no

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11/ In such conventions, as we shall see, prevention is viewed solely in terms of action aimed at containing or minimizing the harmful effects of an incident that has already occurred, i.e. at preventing such effects from realizing their full potential for causing transboundary harm. It is generally considered to be a cost that might be incurred by any party - the affected State or private individuals concerned - and that party must be compensated by the State of origin. It is one component of damage.

12/ As the text of the recommendation suggested below will show, it will be for the State to take the necessary legislative, administrative and enforcement measures to ensure that those responsible for the activities covered by our draft take substantive preventive measures.

13/ In a study carried out for the United Nations Environment Programme (UNEP) on liability and compensation for damage resulting from the transboundary movements and disposal of hazardous wastes and other wastes, Professor Guenther Handl notes the difficulties caused by certain conventions and drafts in which a mixture of rights and obligations is created under civil law and public international law, and in which private individuals and States acting jure imperii assume both substantive and procedural obligations that are closely interrelated. He is referring to the Convention on the Regulation of Antarctic Mineral Resources Activities, the draft on the preservation of the marine environment from activities in the area ("Prep. Comm. Regs.") and the Basel Convention on hazardous and other wastes. He states that consideration of private actions gives rise to a discussion on questions of the sovereign immunity of States:

provisions on State responsibility; 14/ (c) as has been time and again, the imposition of primary obligations of prevention would make any breach a wrongful and therefore prohibited act. This brings us to what is by now the

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> "It thus accentuates the difficulties with and shortcomings of the traditional approach to liability for transboundary environmental harm, namely the separate but parallel regime: one for so-called civil-law liability, the other for States' public international accountability. As a rule a parallel regime of this kind has also implied a dual forum approach: recourse to domestic courts on the one hand, and to international dispute settlement mechanisms on the other."

This is precisely what was tentatively proposed in the sixth report, and it prompted misgivings about the interrelationship between State responsibility and civil liability, in addition to the usual objections to State responsibility voiced in the Commission and in the Sixth Committee. In order to function, the parallel regime proposed in the sixth report would require the State, under article 31, to waive its immunity from jurisdiction (except with regard to enforcement measures), and that caused many to suggest that references should be made to the Commission's draft on the jurisdictional immunities of States and their property. Professor Handl suggested the mechanism of a tribunal along the lines of a claims commission, a suggestion that traces its ancestry to the proposal by the Netherlands in the Standing Committee of the International Atomic Energy Agency (IAEA) which is responsible for considering amendments to the Vienna and Paris Conventions on liability for nuclear damage. There is apparently some scepticism as to whether the Netherlands initiative can succeed, and as to whether an equivalent international tribunal can be covered by the prospective protocol on liability and compensation to the Basel Convention. The elements of such a protocol, which will be taken into account by the Conference of the Parties, were prepared first by a group of experts convened to assist the secretariat, then by the Ad Hoc Intergovernmental Working Group of Legal and Technical Experts convened for that purpose, both of which the present Special Rapporteur had the honour to chair and both of which had the services of Professor Guenther Handl as a UNEP consultant.

14/ See Günther Doeker and Thomas Gehring, "Private or international liability for transnational environmental damage - The precedent of conventional liability regimes", Journal of Environmental Law 2(1): 1(1990), in which the authors consider several conventional liability regimes. They find that to date only the Convention on International Liability for Damage Caused by Space Objects provides for strict liability on the part of the State; all the others rely on civil liability. "Regarding space activities, military and civil components were at the time of regime creation, and are still today, heavily intertwined. Military and global-political considerations have always been a domain of governmental interest. At the

standard objection: we would be dealing with prohibited acts, whereas the mandate from the General Assembly is to examine the question of liability for acts not prohibited by international law. Although in our opinion - and in the opinion of many members of the Commission - this is not a fundamental objection, 15/ it is always wise to preserve methodological purity. Defining

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time of negotiations on liability for space activities, this interest obviously prevailed" (idem, pp. 14 and 15). The authors make a distinction between, on the one hand, such cases and, on the other, the civilian use of nuclear energy and the transport of dangerous substances, where the activity is of a purely commercial nature. Furthermore, in differentiating between solutions with regard to civilian nuclear activities and the transport of dangerous substances, they argue that there is subsidiary State involvement in the first instance, but none in the second instance. They quote the statement made by the United States representative at the 1969 Brussels Conference, to the effect that State participation 'should only be considered if it could be shown that incremental insurance costs resulting from a traditional type though high limit maritime law solution were so huge as to make it uneconomic for vessel owners to continue in business.' In other words, States were not prepared to engage in subsidiary liability as long as the industry in question itself is able to bear the burden of increased liability" (idem, p. 15 (emphasis added)). If that reasoning is correct, there is even more justification for applying it to the case of State responsibility for wrongful acts in draft articles intended to become a framework convention governing any activity that causes, or creates a risk of causing, significant transboundary harm. Along the same lines, Professor Rest states in the aforementioned article:

> "Altogether the Code favours the civil liability approach and does not demonstrate the possibilities of a State Responsibility/Liability concept, which should be combined with the civil liability concept. It is worth mentioning that, for instance, in the precedent Draft Code of February 1988, prepared by the ECE Secretariat, 'the development of international law regarding international responsibility, liability and compensation' was still explicitly ruled. The deletion of this phrase illustrates again in a very impressive manner that States refuse or are very reluctant to bind themselves by compulsory State liability regulations" (op. cit., infra, p. 136, note 35).

15/ Preferable, although not indispensable. The question was considered at great length in earlier debates, and it was suggested that the title should refer to activities, not to acts. It would be in keeping with the Commission's mandate to settle all matters relating to the activities concerned, including responsibility (in the sense of a whole range of primary obligations) for wrongful acts committed in the conduct of such activities (see ...).

the relationship between State responsibility for wrongful acts and the liability of private individuals sine delicto is not easy, especially in connection with an item that is in itself complicated; (d) if we include an element of prevention that is as important as the one covered in this article, we shall have to do likewise at least with regard to one procedural obligation resting with the State of origin, the obligation to consult any States that may be affected, before authorizing an activity with harmful effects, as we shall see shortly. That would be contrary to the almost unanimous desire not to introduce procedural obligations into the body of the instrument. We would have to include it because, as we shall see, consultation regarding a regime legalizing activities with harmful effects is practically the only useful aspect of any draft.

12. The annex should have a heading which, in addition to declaring that its provisions are exclusively recommendatory and that they would make for better implementation of the principles and objectives of the articles in the main body of the text, would rely on international law for the responsibility/liability that might come into play if non-compliance with any of those provisions was also a breach of an international obligation. In other words, adopting some provisions as recommendations would have the effect of facilitating implementation of the draft; failure to follow the recommendations would not entail consequences within the system of our articles, but no position is taken concerning consequences that might arise in the area of general international law or under other agreements. See in this connection articles 4 and 5.

B. An alternative

13. If the prevailing opinion is that there must be unilateral obligations of prevention, and that, on the other hand, the procedural articles should be moved to the annex, even though that would complicate the part dealing with responsibility/liability, and there would be the obstacle posed by States' reluctance to assume obligations of prevention, article 1 of the annex could be placed in the main text, with the mood of the verbs being changed. In that event, the text should at least include the obligation to consult with regard to activities with harmful effects.

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Such being the case, the English title should be amended to reflect the fact that we are dealing with responsibility and liability for injurious consequences of activities not prohibited by international law. See the seventh report (A/CN.4/437, footnote 3), where we quote Quentin-Baxter and refer to the "Informal Composite Negotiating Text/revision 2" of the Third United Nations Conference on the Law of the Sea, which examines the meaning of the terms "responsibility" and "liability".

C. Joint treatment of unilateral preventive measures

14. We must now ask whether an article of this nature, wherever it may be placed, would apply to the two types of activity of article 1, namely activities involving risk and activities with harmful effects, and, in order to do so, we must again ask what is the preventive role attributed to the State in each case. We had seen that the preventive measures to be taken by the State would be very different from those to be taken by individual operators: the State would have to set forth a prudent and comprehensive set of rules (including laws and administrative regulations) in respect of prevention, and would have to monitor their implementation by the legal means at its disposal. Individuals would have to adopt whatever substantive measures the State forced them to adopt.

15. It is with regard to substantive measures that the role of prevention differs depending on whether the activity is one that involves risk or one that has harmful effects: in the former case, the result of prevention is uncertain since, by definition, incidents may occur in spite of the precautions that have been taken, and, in the latter, prevention is either entirely effective and prevents the harmful consequences from occurring (or from reaching the threshold of "significant" harm or it is wholly or partly ineffective, in which case it does not prevent the significant harm from occurring. 16/

16. But so far as the State is concerned, its role is the same no matter what the activity being regulated: in other words, it must adopt certain legislative, administrative and enforcement measures in order either to minimize the risk of accidents or to prevent the transboundary harm from exceeding the tolerable threshold and becoming significant. These will still be legislative, administrative or enforcement measures, in other words of identical nature, within the context of the concept of "due diligence". So far as prevention is concerned, the State would have to legislate and monitor.

17. In order to be able to adopt such measures, the State must subject to a special regime all activities under its jurisdiction or control which may prima facie be activities which cause or might cause transboundary harm. This is what is done at present, we assume, in the majority of countries in the world with regard to the protection of their own population. What criteria must a Government apply in recognizing such activities? Firstly, the general definition of such activities given in article 2. As has already been suggested, it could also include in an annex, an indicative list of dangerous substances and possibly also of dangerous activities; since the list would be only indicative, the drawbacks (of which we have heard so much) of an

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16/ If such significant harm is inevitably related to the activity, it would be worth giving serious consideration to the possibility that, prior to authorizing the activity, the State of origin might require the operator to propose alternatives that do not produce that harm, as we shall see.

exhaustive and mandatory list would not apply. We believe that, if we approach prevention thus, there would be no serious problems, since the activities which involve risk, such as those mentioned in the said article 2, are already subject to prior authorization perhaps in most States. So far as our draft articles are concerned when assessing the impact that the activity in question would have on the environment, health or property of their own populations, Governments would also have to take into account the possible transboundary effects. Governments would undoubtedly delegate this task to the private operators under their jurisdiction or control, and require the latter to provide, at their own cost, the data necessary for the assessments.

D. The need to consult: differences according to the activity

18. With regard to the need to consult at the start of the activity, it is worth analysing how activities involving risk differ from activities with harmful effects: the former create a risk of transboundary harm, the latter cause harm directly; they are activities which by definition cause harm in the course of their normal operation. There is already a considerable body of international theory and practice to support the view that transboundary harm caused by these activities, when significant, is, in principle, prohibited under general international law. That being so, an activity of this type could exist only if there were some form of prior consent of the affected States. The strictness of this principle is somewhat lessened by the fact that certain activities have cumulative harmful transboundary effects, which have little by little exceeded the threshold of tolerance and have reached the level of "significant harm". This has happened, for example, with air pollution which produces acid rain both in Europe and in North America. However, although it has been impossible to prohibit the activities which cause these effects, there is no doubt that international cooperation has been set in motion to try and strip these activities of their most harmful characteristics. The Convention on Long-Range Transboundary Air Pollution is one example, although it does not contain any clauses relating to liability. By means of this cooperation, States concede that the situation is one that is tolerated temporarily, for important reasons, but that it will have to be eradicated. Also, owing to the difficulty of proving the cause-and-effect relationship between the various sources and the harm, it is clear that everything that has to do with compensation becomes secondary. What emerges from all this is that, in practice, the factor of greatest, or even sole, interest for activities of this type, is prevention and the need for consultation in order either to work out an acceptable regime so that the activity can begin to be undertaken, or to develop, where the activity is already under way - as in the case of the said long-range pollution produced by the use of fossil fuels - a regime that will make the activity tolerable so that ultimately there is an alternative to the significant transboundary harm.

19. In its "Elements for a draft convention on environmental protection and sustainable development", the Experts Group on Environmental Law of the World Commission on Environment and Development, proposes that the issue of lawfulness or unlawfulness of risk and harm be dealt with by means of one

principle and two exceptions. In its article 10 it states a principle that reflects the general prohibition on causing, or creating the risk of causing, transboundary harm, as follows:

> "States shall, without prejudice to the principles laid down in articles 11 and 12, prevent or abate any transboundary environmental interference or a significant risk thereof which causes substantial harm - i.e., harm which is not minor or insignificant." 17/

The commentary states that article 10 lays down the well-established basic principle governing transboundary environmental interferences, viz. that States shall prevent or abate any such interference which causes, or entails a significant risk of causing, substantial harm in an area under national jurisdiction of another State or in an area beyond the limits of national jurisdiction. 18/ This principle would amount to a generic prohibition on causing "substantial" transboundary harm - to use the words used in that draft article - and would respond to the intangibility, in principle, of the territorial sovereignty of the affected State. Professor Reuter, our

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17/ Environmental Protection and Sustainable Development: Legal Principles and Recommendations, adopted by the Experts Group on Environmental Law of the World Commission on Environment and Development (London, Dordrecht, Boston, Graham and Trotman/Martinus Nijhoff, 1987), p. 75.

18/ Ibid. (emphasis added). In support of this position, the Experts Group quotes the classic statement in the arbitral award of the Trail Smelter case (United States v. Canada), which reads:

> "Under the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence." (idem, p. 76)

It is obvious from the above also that only harm which is not minor or insignificant is relevant for purposes of international law.

It also quotes article 192, paragraph 2, of the United Nations Convention on the Law of the Sea, and refers to the acceptance of the concept, implicitly or explicitly, in numerous international instruments, including Principle 21 of the Stockholm Declaration; resolution 2995 (XXVII) of the General Assembly of the United Nations of 15 December 1972, on cooperation between States in the field of the environment (para. 1); General Assembly resolution 3129 (XXVIII) of 13 December 1973, on cooperation in the field of the environment concerning natural resources shared by two or more States; and resolution 3281 (XXIX) of 12 December 1974, adopting the Charter of Economic Rights and Duties of States (arts. 2 and 30). It points out that the

respected dean, used to ask: "Do not the rules of territorial sovereignty lay down the principle of the prohibition of any physical activity that affects the territory of a State from a source located in the territory of another State (physical interference)?" 19/ It is also interesting to see what the UN/ECE Task Force - whose opinion we quoted in an earlier note - has to say, with regard to transboundary water pollution.

20. With respect to activities involving risk, the following article, article 11, sets forth the first exception, by means of the concept of balance of interests.

> "1. If one or more activities create a significant risk of substantial harm as a result of a transboundary environmental interference, and if the overall technical and socio-economic cost or loss of benefits involved in preventing or reducing such risk far exceeds in the long run the advantage which such prevention or reduction would entail, the State which carried out or permitted the activities shall ensure that compensation is provided should substantial harm occur in an area under national jurisdiction of another State or in an area beyond the limits of national jurisdiction." 20/

21. It is also important to point out that the jurists of the World Commission on Environment and Development do not, provided that the condition set forth in italics is met, envisage the possibility of submitting the activity in question to prior authorization or consultation at the international level. The conclusion to be drawn is that, if the opposing interests occur in the proportions indicated, there is here a principle of law that authorizes the activity in question to continue or to be undertaken without prior consultation or authorization at the international level.

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judgement of 16 December 1983 of the District Court of Rotterdam, in the case of Mines domaniales de Potasse d'Alsace, also sets forth the same principle and agrees with the foregoing (ibid., pp. 77 and 78).

Furthermore the now traditional references, namely, the Corfu Channel case, the Lake Lanoux case, the Gut Dam case and others which illustrate the basis of liability for transboundary harm, such as the Island of Palmas case, have been cited repeatedly in the course of our debates. All these judicial precedents have been reviewed repeatedly and there is no point in dwelling upon them now.

19/ "Principes de droit international public", Recueil des cours ... 1961, quoted in the second report of Professor Quentin-Baxter, Yearbook ... 1981, vol. II (Part One), p. 116, footnote 95.

20/ Environmental Protection ... (supra, footnote 17), p. 80. Emphasis added.

22. This seems to be confirmed by present-day practice. There are dangerous activities which have been undertaken and which have caused, or threatened to cause, harm to third States. After a while, States have sought legal regimes for such activities to establish the principle of balance of interests; they have generally done so by transferring liability to the individual operators: this has been done with regard to nuclear activity, through several conventions, the transport of petroleum by sea, aviation, accidental and non-accidental transboundary pollution of inland waters and so forth. 21/ On those occasions when it has been impossible to establish such a balance, the activity has been prohibited by treaty, as in the case of the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (5 August 1963), the Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques (10 December 1976) and the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof (11 November 1971).

21/ In the document we are quoting (see footnote 17 above), reference is made to the 1952 Rome Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface (art. 1); the 1960 Paris Convention on Civil Liability in the Field of Nuclear Energy, amended by the 1964 Additional Protocol and by the 1963 Brussels Convention Supplementary to the 1960 Paris Convention; the 1963 Vienna Convention on Civil Liability for Nuclear Damage; the 1962 Brussels Convention on the Liability of Operators of Nuclear Ships; the 1969 International Convention on Civil Liability for Oil Pollution Damage; and the 1976 London Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources (ibid., p. 82). It also cites Conclusion 35 of the 1981 UNEP Study on the Legal Aspects concerning the Environment related to Offshore Mining and Drilling within the Limits of National Jurisdiction (ibid.).

Reference is also made to the acceptance by many major countries - France, the former Soviet Union, Germany, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Mexico, Venezuela, Egypt, Libyan Arab Jamahiriya, Senegal, Madagascar, Ethiopia, India, Thailand, Syrian Arab Republic, Kuwait, Iraq, Jordan, Lebanon, Turkey and Japan - of the principle of strict liability under national law. Based on that widespread acceptance, it concludes that:

> "The increasing acceptance of strict liability for ultrahazardous activities at the national level is evidence of an emerging principle of (national) law recognized by civilized nations. As known, according to Article 38(1)(c) of the Statute of the International Court of Justice, such a principle may also govern the relationship between sovereign States when there is no treaty or rule of customary international law calling for the application of a different principle or rule." (ibid., p. 84)

23. Starting from the basis of the prohibition, in principle, of all substantial transboundary harm, any activity under the jurisdiction or control of a State that inevitably caused such harm (such as activities with harmful effects) would, in principle, be internationally wrongful. But here too, balance of interests can play an important role. Returning to the discussion of the issue by the Experts Group of the World Commission on Environment and Development, article 12 says the following:

> "1. If a State is planning to carry out or permit an activity which will entail a transboundary environmental interference causing harm which is substantial but far less than the overall technical and socio-economic cost or loss of benefits involved in preventing or reducing such interference, such State shall enter into negotiations with the affected State on the equitable conditions, both technical and financial, under which the activity could be carried out.
>
> 2. In the event of a failure to reach a solution on the basis of equitable principles within a period of 18 months after the beginning of the negotiations or within any other period of time agreed upon by the States concerned, the dispute shall at the request of any of the States concerned, and under the conditions set forth in Paragraphs 3 and 4 of Article 22, be submitted to conciliation or thereafter to arbitration or judicial settlement in order to reach a solution on the basis of equitable principles." 22/

24. There is a common basis for the two types of activity: the transboundary harm caused must, in the long run, be less than the cost (overall technical and socio-economic cost or loss of benefits) involved in preventing or reducing such harm or risk thereof. Otherwise, if the cost of preventing the harm or risk thereof was much lower, in the long run, than the harm caused, the activity would clearly be unlawful, perhaps because the difference in cost would be the measure of the negligence of the State of origin.

25. On the other hand, if the balance of interests tilts in the direction indicated by the above-mentioned texts, then there are two separate consequences, depending on the type of activity involved: (a) activities involving risk would be lawful provided that the State of origin accepts strict liability for the harm caused (the balance being righted by payment of appropriate compensation plus costs of preventive measures; 23/ and (b) activities with harmful effects would not be regarded either as clearly

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22/ Ibid., pp. 85 and 86. Emphasis added.

23/ Here prevention means measures taken after the incident to contain or minimize the harm. Strict liability with compensation is perhaps a good incentive for adopting reasonable preventive measures to avert an incident so that the activity may continue with all possible precautions.

lawful or as clearly unlawful (consequently, they would not be prohibited), pending substantiation of the obligation to negotiate or the resolution of the relevant dispute as the case may be. 24/

26. Although we do not intend to follow the proposal of the Experts Group literally, the legal analysis which the experts carried out seems basically correct, in that States of origin may undertake activities involving risk, provided they ensure that appropriate compensation will be paid in the event that transboundary harm does, in fact, occur. We believe it would not be practical to require, as a precondition for initiation of the activity, proof that the overall technical and socio-economic costs or loss of benefits in the long run exceed the harm, or vice versa. On the contrary, we believe that an activity involving risk can be started just as long as the condition we stated is met. However, the State of origin would, nevertheless, have to consult with those which might subsequently be affected, to consider whether the preventive measures imposed on individual operators were acceptable, bearing in mind the factors set forth in former article 17, which is now article 9 of the annex.

27. With regard to activities with harmful effects, which, by definition, cause harm in the course of their normal operation, we would recommend making the initiation of such activities conditional upon prior consultation with the affected States, with a view to working out an agreement on the regime under which the activities would be permitted. The procedure would have to be supplemented by a mechanism for the settlement of disputes. This, of course, would be without prejudice to any action which victims might have, under international law, in respect of harm already caused and in relation to the State's obligations in terms of its responsibility for wrongful acts (due diligence), or possibly in relation to the strict liability of private operators.

28. If the consultations referred to in the preceding article were to indicate that there is no effective means of preventing the significant transboundary harm, or if the affected State demonstrates that there is no satisfactory way of compensating the victims, the State of origin would not authorize the activity unless the operator proposed alternatives which would not entail "significant" harm.

24/ See Environmental Protection ... (supra, footnote 17), p. 87.

E. Notification, information and warning by the affected State

29. It is advisable to read the Special Rapporteur's fifth 25/ and sixth 26/ reports on this point. The first of these shows that consultation is closely linked with notification of the situation that gives rise to it and with prior information on the nature of such a situation (para. 74), to the point that if no reference was made to notification and information they would be implicit. The fifth report also states (paras. 76 and 77) that the general obligation to cooperate is one of the bases for notification, "because in some cases there is a need for joint action by both States, the State of origin and the affected State, if prevention is to be effective"; and that the other basic principle notification is the duty of a State not to consciously use its territory to cause injury. A commentary on the international practice in the matter is found on pages 27 to 32.

30. The procedure suggested in the fifth report was simplified and somewhat modified in the sixth; and in the present report, it is further simplified. Article 12, dealing with participation in consultations by international organizations, has been deleted because actually the States concerned can always participate in consultation with such organizations on a voluntary basis, depending on the extent to which the organization in question is permitted by its statutes to participate as requested by the State. On the other hand, we are keeping the recommended recourse to an international organization to determine which States would be affected as a result of an activity with very widespread effects or a long-distance impact, bearing in mind that some international organizations have agreements and means for assessing the impact of certain occurrences or activities. For example, UNEP has organized a Global Environmental Monitoring System (GEMS) based on national systems. This is a good instance of the kind of assistance an international organization, or in this case, programme, can provide.

II. ANNEX - RECOMMENDATORY PROVISIONS ON PREVENTION

31. On the basis of the draft articles on prevention and the comments and commentaries made during the debate on the question, we now propose the following articles, together with commentaries on the drafting: 27/

25/ A/CN.4/423, pp. 24-27.

26/ A/CN.4/428, pp. 20-25.

27/ The commentaries refer only to circumstances such as the reasons why certain drafting changes were made other than those proposed in the sixth report, or matters of this nature.

"ANNEX

In respect of the activities referred to in draft article 1, and in the interest of fuller compliance with its objectives and principles, the following provisions are in the nature of recommendations, without prejudice to any corresponding responsibilities arising under international law.

Article 1

Preventive measures

The activities referred to in article 1 of the main text should require the prior authorization of the State under whose jurisdiction or control they are to be carried out. Before authorizing or undertaking any such activity, the State should arrange for an assessment of any transboundary harm it might cause, and should ensure, by adopting legislative, administrative and enforcement measures, that the persons responsible for conducting the activity apply the best available technology to prevent or to minimize the risk of significant transboundary harm, as appropriate.

Commentary

(1) This article refers to what in former article 16 were called 'unilateral preventive measures', i.e. measures that a State adopts of its own accord, without prior consultation with any other, and as a first line of precaution. We have preferred to change the order established in the sixth report and place this article at the beginning, in order to underscore the need for prior authorization by the State of origin and make that contingent upon an assessment of the transboundary impact. Our text sets out the first duty of a Government in respect of activities that appear to come under article 1. The assessment of the possible transboundary effects was a provision of article 11 in the sixth report. If a State discovers that an activity that appears to come under article 1 is already being conducted without its authorization, it will no doubt review it and, if necessary, insist on the need for prior authorization. Such authorization is called for with respect to both types of activities referred to in this article; but, in the case of activities involving risk, only if the State's authorization is not contingent upon any prior international procedure. In the case of such activities, the purpose of the recommended consultation (if it is indeed called for by the special nature of the activity) is merely to make the necessary adjustments to the regime established by the State of origin for the conduct of the activity - for example, reaching an agreement on coordinated precautionary measures such as contingency plans - with the proviso that any compensatory regime must be the one established in the main text, which will in principle be a regime of strict liability.

(2) Furthermore, if international criteria come into play, the present articles will in no way affect their validity or their character: if they are compulsory by reason of some international or regional agreement or custom, the fact that here it is left to the State of origin to choose the means it will follow in no way erodes the binding nature of the other instrument or custom. The phrase 'best available technology' was taken from the Code of Conduct on Accidental Pollution of Transboundary Inland Waters. 28/

Article 2

Notification and information

If the assessment referred to in the preceding article indicates the certainty or the probability of significant transboundary harm, the State of origin should notify the States presumed to be affected regarding this situation and should transmit to them the available technical information in support of its assessment. If the transboundary effect may extend to more than one State, or if the State of origin is unable to determine precisely which States will be affected, the State of origin should seek the assistance of an international organization with competence in that area in identifying the affected States.

Commentary

As we have said, information is closely linked to notification and consultation: hence the need to provide information on the outcome of the assessment of the transboundary impact. Information does not entail an additional effort to investigate beyond what has already been done, and therefore the word 'available' was used to convey that idea. The State of origin gives what it has; it is not under an obligation to make further inquiries or more extensive inquiries than the ones it has already conducted. If it proves difficult to discern the extent of the probable effects of the activity, the State of origin shall try to avail itself of the services of an international organization with competence in the area.

28/ Economic Commission for Europe, Code of Conduct on Accidental Pollution of Transboundary Inland Waters (United Nations publication, Sales No. E.90.II.E.28), sect. II, art. 1.

Article 3

National security and industrial secrets

Data and information vital to the national security of the State of origin or to the protection of industrial secrets may be withheld, but the State of origin should cooperate in good faith with the other States concerned in providing any information that it is able to provide, depending on the circumstances.

Commentary

This article simplifies and incorporates parts of former articles 11 and 15, both in the sixth report. It does not include as did the former article 11, the option of also providing information on precautionary measures the State is thinking of taking, because actually a description of such measures would be a normal part of the information that has to be transmitted to the affected State or States, given the very nature of the consultations, which would surely centre on the regime to be applied.

Article 4

Activities with harmful effects: prior consultation

Before undertaking or authorizing an activity with harmful effects, the State of origin should consult with the affected States with a view to establishing a legal regime for the activity in question that is acceptable to all the parties concerned.

Commentary

This article reflects a norm that is not found in the sixth report, and it follows the thinking that, to the degree to which an activity in the normal course of its operation causes transboundary harm, it must become suspect as a wrongful activity. This is so because either such harm is avoidable, and in this case the State of origin is obliged to require the applicant for authorization to take the necessary preventive measures, or else such harm is unavoidable, and in this case no further steps can be taken without some kind of consultation with the affected States in which the latter can if they wish make counterproposals regarding the conduct of the activity.

Article 5

Alternatives to an activity with harmful effects

If such consultations show that transboundary harm is unavoidable under the conditions proposed for the activity, or that such harm cannot be adequately compensated, the affected State may ask the State of origin to request the party requesting authorization to put forward alternatives which may make the activity acceptable.

Commentary

The wording of this article is similar to that of draft article 20 in the sixth report.

Article 6

Activities involving risk: consultations on a regime

In the case of activities involving risk, the States concerned should enter into consultations, if necessary, in order to determine the risk and amount of potential transboundary harm, aiming at arriving at an arrangement with regard to such adjustments and modifications of the planned activity, preventive measures and contingency plans as will give the affected States satisfaction, on the understanding that liability for the harm caused will be subject to the provisions of the corresponding articles of the main text. 29/

Commentary

The reasons for this provision, which takes a different approach from that taken in the sixth report, have already been stated above. It is important to point out that the fact that the State has no obligation of due diligence does not make applicable international criteria which may exist in this connection any less valid.

Article 7

Initiative by the affected States

If a State has reason to believe that an activity under the jurisdiction or control of another State is causing it significant harm or creating a risk of causing it such harm, it may ask that

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29/ Code of Conduct (footnote 28 above), sect. VII, art. 7.

State to comply with the provisions of article 2 of this Annex. The request should be accompanied by a technical explanation setting forth the reasons for such belief. If the activity is found to be one of those referred to in article 1 of the main text, the State of origin should pay compensation for the cost of the study.

Commentary

This text is based on article 13 as set out in the sixth report.

Article 8

Settlement of disputes

If the consultations held under articles 3 and 5 above do not lead to an agreement, the parties should submit their differences for consideration under the procedures for the settlement of disputes set out in Annex ...

Commentary

It is clear that an expeditious procedure for the settlement of disputes is altogether necessary in order to settle any existing differences, either regarding the need for a given regime in the case of activities involving risk, or regarding authorization to carry out an activity with harmful effects; otherwise a point would be reached where there would be instances of real vetoes by affected States.

Article 9

Factors involved in a balance of interests

In the case of the consultations referred to above and in order to achieve an equitable balance of interests among the States concerned in relation to the activity in question, these States may take into account the following factors:

(a) Degree of probability of transboundary harm and its possible gravity and extent, and likely incidence of cumulative effects of the activity in the affected States;

(b) The existence of means of preventing such harm, taking into account the highest technical standards for engaging in the activity;

(c) Possibility of carrying out the activity in other places or with other means, or availability of other alternative activities;

(d) Importance of the activity for the State of origin, taking into account economic, social, safety, health and other similar factors;

(e) Economic viability of the activity in relation to possible means of prevention;

(f) Physical and technological possibilities of the State of origin in relation to its capacity to take preventive measures, to restore pre-existing environmental conditions, to compensate for the harm caused or to undertake alternative activities;

(g) Standards of protection which the affected State applies to the same or comparable activities, and standards applied in regional or international practice;

(h) Benefits which the State of origin or the affected State derive from the activity;

(i) Extent to which the harmful effects stem from a natural resource or affect the use of a shared resource;

(j) Willingness of the affected State to contribute to the costs of prevention or reparation of the harm;

(k) Extent to which the interests of the State of origin and the affected States are compatible with the general interests of the community as a whole;

(l) Extent to which assistance from international organizations is available to the State of origin;

(m) Applicability of relevant principles and norms of international law.

Commentary

The Special Rapporteur indicated in the sixth report 30/ that the concepts contained in what was then article 17 were 'recommendations or guidelines for conduct' rather than 'genuine legal norms'. He refers those desiring a somewhat fuller discussion of the reasons for including these recommendations in the Annex to the relevant discussion in the sixth report. However, enough has been said to indicate that the appropriate place for this article is precisely an annex containing non-binding provisions, and, to be more exact, the part on consultations; it is at the time when

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30/ A/CN.4/428, para. 39.

consultations are being held that the criteria included are useful - namely, at a time when the respective interests of the parties are being compared in order to decide whether an activity involving risk or with some harmful effect is admissible."

III. APPENDIX - DEVELOPMENT OF SOME CONCEPTS IN DRAFT ARTICLE 2 APPEARING IN PREVIOUS REPORTS

A. General comments

32. As was pointed out earlier, article 2 is "open" in nature, and some of the definitions it contains appear to require further thought. This fact, along with the appearance of certain recent drafts and studies in the field of liability for activities not prohibited by international law, has suggested the desirability of bringing the following ideas to the attention of the Commission, in the hope that the debate will provide guidance for the work of the Drafting Committee, which is already dealing with this article.

B. The concept of risk

33. Risk had been defined in the fourth report (A/CN.4/413) as "the risk occasioned by the use of substances whose physical properties, considered either intrinsically or in relation to the place, environment or way in which they are used, make them highly likely to cause transboundary injury throughout the process" (art. 2 (a)), and "appreciable risk" as "the risk which may be identified through a simple examination of the activity and the substances involved" (2 (b)). In other words, an attempt was made to define activity involving risk in terms of the substances involved, and "appreciable risk" by the possibility of the risk being apparent; what was involved, then, must be a perceptible risk, not a hidden risk requiring thorough examination in order for it to become apparent. It was also required to be of not insignificant magnitude. Thus the concept "appreciable" introduced a duality of meanings.

34. In the sixth report, on the other hand, activities involving risk are defined by the fact of involving dangerous substances, technologies or genetically altered organisms and micro-organisms. With the activities dealt with in the draft (art. 2 (a)) defined in this way, there was no need for a general definition of risk. The concept of appreciable risk, or significant risk, as it may be called depending on what the Commission decides, was however an issue, as it involved a concept which was to be dealt with in the draft, and the sixth report included the relevant definition in article 2 (e).

35. Now that the idea of dangerous substances has been discarded as a result of the preference expressed both in the Commission and in the General Assembly, 31/ the definition of risk needs to be re-examined. This is important in order to define clearly the scope of the articles, so that Governments will know in respect of which activities they will have to adjust their domestic legislation in order to assign liability to the persons they

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31/ See the seventh report (A/CN.4/437), paras. 25-29.

consider should be responsible for the corresponding compensation payments, in addition to instituting the means required to secure them. There is not an abundance of models, because the conventions on specific activities do not need to deal with the concept of risk in order to define their scope: the activities covered under such agreements are presumed to involve appreciable or significant risk. The only general draft convention on dangerous activities is the Council of Europe text already referred to, and as has already been seen, a considerable number of colleagues and delegations to the Sixth Committee did not find its approach adequate.

36. A definition of risk exists in relation to the accidental pollution of transboundary inland waters. The Code of Conduct on this subject, 32/ in article 1, defines three closely related concepts: in subparagraph (f), "risk" means the combined effect of the probability of occurrence of an undesirable effect and its magnitude; in (g), "hazardous activity" means any activity which by its nature involves a signficant risk of accidental pollution of transboundary inland waters; and in (h) "hazardous substance" means any substance or energy involving a signficant risk of accidental pollution of transboundary inland waters, including toxic, persistent and bio-accumulative substances and harmful micro-organisms. The Convention on the Transboundary Impacts of Industrial Accidents, in article 1 (d), also defines the concept of risk as the combined effect of the probability of occurrence of an accident and the severity of its impact. 33/ The Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD) does not define risk, but only dangerous goods (in art. 1, para. 9), and does so simply by reference to certain lists contained in European agreements. The draft Framework Agreement on Environmental Impact Assessment in a Transboundary Context establishes the need for such assessment in respect of certain activities, but also does so by means of lists. Article 2, paragraph 5, defines planned activity which should be assessed in terms of its transboundary impact, stating that "planned activity" means "any activity or any major change to an activity, particularly those listed in Appendix I hereto, and subject to a decision in accordance with an applicable national procedure". 34/ Appendix I cites as planned activities likely to have a transboundary impact such works as major agricultural projects, major crude-oil refineries and installations for the gasification or liquefaction of coal, thermal power stations and other combustion installations, nuclear power stations and other nuclear reactors, etc. Appendix III establishes general criteria for determining the environmental significance of activities not listed in appendix I, although

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32/ See supra, note 28.

33/ Convention on the Transboundary Impacts of Industrial Accidents, ENVWA/WG.1/R.1.

34/ See ENVWA/AC.3/6, annex.

their application in specific cases would be subject to the consent of the States concerned (art. 2, para. 5). These criteria are: (a) magnitude: proposed enterprises that are large in relation to the type of activity involved, particularly when they are of more than local importance; (b) location: proposed activities which are located in or close to an area of special sensitivity or importance (such as wetlands designated under the Ramsar Convention, national parks, nature reserves, sites of special scientific interest or sites of archaeological, cultural or historical importance), as well as activities at locations where the nature of the proposed development would probably have significant effects on the population; (c) effects: planned activities with particularly complex effects and effects potentially adverse to human beings or to valuable species or organisms, those threatening the current or potential use of an affected area and those creating an additional burden which cannot be sustained by the absorption capacity of the environment. The parties concerned will consider from this standpoint proposed activities located close to an international frontier, as well as other proposed activities in more remote areas which could give rise to significant transboundary effects far from the site at which they are conducted.

37. To sum up, it is apparent from the above review that there are various elements associated with risk: (a) the activities themselves, in terms of their magnitude and their foreseeable, probably transboundary, effects; (b) the location of the activity in relation to the international frontier or to sensitive areas in neighbouring States that might be particularly affected; (c) the objects of the activity or those with which they deal, objects being taken to mean such various things as certain technologies, substances, and dangerous genetically modified organisms or dangerous micro-organisms. Moreover, the definition involving the combination of the probability of occurrence of an accident and its magnitude appears to lend itself to the description of appreciable, significant or substantial risk, depending on where the minimum level or threshold of risk is to be set.

38. The attempt at a definition in the fourth report, as already pointed out, covered only activities involving dangerous substances, but some of the concepts it contains, applied to the activities themselves and not to the substances involved, figure in the foregoing summary. Dangerous substances are dangerous either intrinsically, or in relation to the place, environment or way in which they are used: intrinsically, for example, explosives, radioactive, toxic or inflammable materials, etc.; in relation to the place, those conducted close to the international frontier or to a particularly sensitive ecological region, or where the winds extend their effect until it becomes transboundary; in relation to the environment in which they are used, water or air when the substances in question have a particular effect on these media; in relation to the way in which they are used, substances used in space activity or aviation, or wherever adequate arrangements are not made for their storage, or substances accumulated in large quantities, such as oil, which is harmless in small quantities and becomes dangerous when 200,000 tons of it are transported by ship; or the construction of a dam which retains in its impoundment a quantity of water sufficient to cause damage of various kinds

(environmental or as a result of an accident leading to the flooding of neighbouring countries or a change in the flow rate of their rivers, etc.).

39. An attempt at a definition should begin with the activities themselves, employing criteria such as those used in the CRTD: magnitude, location and effects. The paragraph in question might be drafted as follows:

> "Risk" means the combined effect of the probability of occurrence of an accident and the magnitude of the harm threatened. "Activities involving risk", for purposes of the present articles, are activities in which the result of the above combination is significant. This situation may arise when the effects of the activity are threatening, as when dangerous technologies, substances, genetically modified organisms or micro-organisms are used, or when major works are undertaken, or when their effects are accentuated by the location of the sites at which they are carried out, or by the conditions, ways or media in which they are conducted.

40. The above text could be divided, so that the first part, up to the word "significant", would form a paragraph of article 2. The remainder could be included in the commentary to the article, if so preferred. In addition, lists of dangerous substances and perhaps also examples of activities involving risk, along the lines of appendix III to the CRTD, could be placed in an annex which would be purely indicative in nature. Naturally, this general definition, or any other that might be attempted, including the provision of examples in the annexes, will not afford a guarantee that all activities involving risk will a priori be included in the draft. However, something along these lines could provide guidance to Governments regarding how the articles will operate.

C. The concept of harm

41. The Guidelines prepared by the United Nations Economic Commission for Europe (ECE) Task Force on Responsibility and Liability regarding Transboundary Water Pollution attempt a "definition of damage as the basic indication for the amount of reparation or compensation due in case of responsibility". 35/ The English text reads as follows: "Damage means: (a) any loss of life, impairment of health or any personal injury; (b) any loss or damage to property or loss of profit; (c) detrimental changes in ecosystems including: (i) the equivalent costs of reasonable measures or reinstatement actually undertaken or to be undertaken and (ii) further damages exceeding those referred to under (i) as provided for in para. E5; (d) the cost of preventive measures and further loss caused by preventive measures, which arise from transboundary water pollution". Paragraph E5 reads:

35/ Alfred Rest, "New Tendencies in Environmental Responsibility/Liability Law: The Work of the UN/ECE Task Force on Responsibility and Liability regarding Transboundary Water Pollution", Environmental Policy and Law 21 (3-4): 135 (1991), p. 137.

"States should endeavour to develop and agree upon methods for compensation for impairment of the environment, such as measures for replacement of habitats of particular conservation concern". 36/ Professor Rest describes the ruling in item (c) as "progressive and innovative", because it opens the door for compensation of ecological damage, and he adds:

> "New is the regulation on the content and amount of the compensation. Not only the costs of reasonable preventive measures or measures of reinstatement actually undertaken are to be paid. Even in the case where a measure of reinstatement is impossible because of the factual situation, with the consequence that no costs arise, the polluter now has to grant compensation, not in the form of paying money, but by replacing habitats of particular conservation concern. Insofar, the Guidelines follow the new concept of the nature-swap-system. But it must be admitted that the word 'reasonable' measure still can hinder the implementation of this system. The Working Group of the Task Force had a very controversial discussion on the insertion of this word, which in the end came into the text for reasons of political opportunity. The still existing, unsatisfying situation can be illustrated by the example of the 'Exxon-Valdez Case'. As in this case it was impossible to clean up the oil-polluted seabed of the Gulf of Alaska because of the factual situation, the Exxon Corporation insofar saved the clean-up costs. This seems to be unjust. According to the Guidelines the polluter could perhaps be obliged to grant equivalent compensation, for instance, by replacing fish or by establishing a Nature Park. Certainly, the very complex problem of evaluating and stating the amount of the ecological damage still raises a lot of unanswered questions. But in general, the purpose of the 'damage definition' is to be welcomed and should be supported." 37/

The article quoted goes on to say that the definition of measures of reinstatement relates to "any reasonable measures aiming to reinstate or reinstore damaged or destroyed natural resources, or where reasonable, to introduce the equivalent of these resources into the environment".

42. The draft Convention of the Council of Europe on civil liability for damage resulting from activities dangerous to the environment, in article 2, paragraph 8, with the exception of subparagraphs (a) and (b), which are substantially similar to those in the Guidelines, deals in (c) with damage to the environment and states: "... provided that compensation for impairment of the environment ... shall be limited to the costs of measures of reinstatement actually undertaken or to be undertaken", and in (d): "the costs of preventive measures and further loss or damage caused by preventive

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36/ [Does not apply to the English text.]

37/ Rest, op. cit., p. 137.

measures". "Measures of reinstatement" (para. 9) are defined as "any reasonable measures aiming to reinstate or restore damaged or destroyed components of the environment or to introduce, when reasonable, the equivalent of those components into the environment".

43. The Antarctic Convention provides that an operator shall be strictly liable for "damage to the Antarctic environment or dependent or associated ecosystems arising from its Antarctic mineral resources activities, including payment in the event that there has been no restoration to the status quo ante" (art. 8, para. 2 (a)), and for "(d) reimbursement of reasonable costs by whomsoever incurred relating to necessary response action, including prevention, containment, clean-up and removal measures, and action taken to restore the status quo ante".

44. The CRTD (damage caused during carriage of dangerous goods), in article 1, paragraph 10, states in subparagraphs (c) and (d) that:

> "(c) loss or damage by contamination to the environment caused by the dangerous goods, provided that compensation for impairment of the environment other than for loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken;
>
> "(d) the costs of preventive measures and further loss or damage caused by preventive measures."

45. Subparagraphs (a) and (b) present no problems, since they figure in any definition of harm. The concept of harm to the environment, which was welcomed by the Commission and the General Assembly when it was introduced in the fifth report, has continued to evolve. The sixth report introduced an article 24 dealing with harm to the environment and resulting harm to persons and property. The harm to the environment comprised "the costs of any reasonable operation to restore, as far as possible, the conditions that existed prior to the occurrence of the harm". The text added that "if it is impossible to restore these conditions in full, agreement may be reached on compensation, monetary or otherwise, by the State of origin for the deterioration suffered".

46. It was pointed out during the related debate that conventions or drafts had up until that time not included the idea of making compensation which extended beyond reasonable operations to reinstate the conditions that existed before the harm, and that accordingly an effort should be made to follow that trend. It appears that the Guidelines of the Task Force, as well as the Council of Europe draft just quoted, open the door to an idea similar to that contained in the sixth report, though perhaps more practical by virtue of being less broad, in that it appears not to contemplate monetary compensation, which is very difficult to establish.

47. Initial consideration would indicate the desirability of combining in a single text, and in article 2 which, as in almost all the instruments reviewed, relates to the use of terms, the concepts of harm to persons, objects or the environment, covered under separate subparagraphs. Likewise, the definition should include not only the concept of harm, but that of transboundary harm, given that the topic relates to international liability, to which only this type of harm gives rise. The first paragraph would then read: "'Damage' means: (a) any loss of life, impairment of health or any personal injury; (b) damage to property; (c) detrimental alteration of the environment, provided that the corresponding compensation would comprise, in addition to loss of profit, the cost of reasonable reinstatement or restorative measures actually taken or to be taken; (d) the cost of preventive measures and additional harm caused by such measures".

48. Paragraph (l) in the sixth report would be replaced by: "'Restorative measures' means reasonable measures to reinstate or restore damaged or destroyed components of the environment, or to reintroduce, when reasonable, the equivalent of those components into the environment".

49. Paragraph (m) would read as follows: "'Preventive measures' means reasonable measures taken by any person following the occurrence of an incident to prevent or minimize the damage referred to in paragraph ... of this article". In this respect, it should be pointed out that such measures have been defined in two ways: as those designed to prevent or avoid the occurrence of an incident (and with it the production of the consequent harm), as well as those designed to contain or minimize the harmful effects of an incident that has already occurred. In fact, conventions or drafts on liability take only these latter measures into account, generally as costs that are to be added to the other compensation payable by the person liable. Frequently, these preventive measures are taken by the affected State, or by individuals within the affected State, to prevent the harm from spreading and developing to its full potential. When such measures were possible within the jurisdiction or control of the State of origin, they would also constitute an obligation on its part.

50. The concept of "transboundary harm" should be defined in a separate paragraph as "the harm which arises in the territory or other areas under the jurisdiction or control of a State as a physical consequence of an activity under article 1 which is conducted under the jurisdiction or control of another State".

51. With regard to the description of harm as "appreciable" or "significant", two comments are called for. One is that the general view tends to favour "significant", because it appears to require a level somewhat higher than "appreciable", and above all because the latter word has the ambiguity of meanings already pointed out. The other is that, to date, the attempt made in the sixth report (para. (h)) to define the threshold of harm has not met with approval. Given this fact, one possibility is not to insist on the attempt, and to leave it to practice to determine when harm is "significant". Recently, the Guidelines prepared by the Task Force have put forward a

definition which may perhaps be more successful than the previous attempt. It reads: "The threshold of damage (as distinguished from mere harm) is that accepted by the States universally or by the concerned States. If no such level is agreed, damage occurs where an affected State is required, as the result of the activity on the territory of the State of origin, to take measures in the interest of the protection of the environment or population or rehabilitation measures." 38/ True, the subjective element is not totally eliminated, because the State taking measures to protect the environment or the population might have an environmental or public health sensitivity much greater than that of the State of origin, in which case a discrepancy would arise whereby the State of origin would perceive it as unjust to have to bear the cost of measures which it deemed to be excessive. 39/ However, this definition is at least more objective than such criteria as "harm that is not insignificant, or trivial, or a mere nuisance" that have been used in an attempt to describe the undefinable threshold, because when a State takes measures, i.e. incurs costs and so forth, there are some grounds for thinking that it is not doing so simply in order to throw its money away. It is also possible to speak of levels that are regionally acceptable, etc. In any event, if the definition reproduced above meets with a certain measure of acceptance, it could be included, while at the same time mentioning in the commentary all the criteria summarized above in order to facilitate a quantification of magnitude that only broad international practice can establish, particularly in a set of articles covering every possible activity that causes or may cause transboundary harm.

38/ Ibid., p. 138.

39/ This occurred, for example, in the case of some of the actions taken by national Governments in Western European countries following the Chernobyl incident, which were regarded by experts in other countries as exaggerated (destruction of pastures supposedly exposed to radiation, slaughtering of some livestock, etc.).